

Environmental Assessment

Glencoe-McLeod 115kV Transmission Line Project

(Glencoe Light and Power Commission, City of Glencoe)

Prepared By: Mr. Larry Gasow, Zoning Administrator, McLeod County

Project Background

Glencoe Light and Power Commission (GLPC) proposes to construct a 115 kilovolt (kV) electric transmission line, approximately 9.5 miles in length, from the existing McLeod substation located in Section 32 of Township 116 North (Hassan Valley), Range 29 West of McLeod County (about 5 miles south of the City of Hutchinson). The proposed transmission line will head east from the McLeod substation along the East-West centerline of Sections 33, 34, 35 and 36 of Hassan Valley Township to the intersection with State Highway 22. The power line will then follow along side the right-of way of State Highway 22, utilizing a portion of an existing 69 kV power line right-of way by replacement and then on to the corporate limits of the City of Glencoe, terminating at the GLPC existing West substation.

This project falls under the Power Plant Siting Act, Minnesota Statutes 116C.51-.69 and Minnesota Rules Chapter 4400 and requires an environmental review by the Minnesota Environmental Quality Board (EQB). Under these regulations, the proposed project was eligible for local review. GLPC applied for local review of the project and McLeod County was acknowledged by the EQB as the Responsible Governmental Unit (RGU) for the Glencoe-McLeod 115kV Transmission Line Project (see attachments).

As required, McLeod County has provided an opportunity for the public to participate in the development of the scope of this environmental assessment before it was prepared. Introductory meetings were held with the four townships affected by possible routes. The proposed transmission project was discussed at the regularly scheduled township meetings for Hassan Valley Township (October 9, 2003), Sumter Township (October 9, 2003), Glencoe Township (October 9, 2003), and the Rich Valley Township (November 12, 2003). Public Notice was made and meetings of the McLeod County Planning Commission were held on October 22, 2003 and on November 19, 2003 to provide such opportunity for the public to make comment. After numerous public comments, in addition to letters and resolutions from property owners and township boards, the McLeod County Planning Commission recommended to the County Board that the Conditional Use Permit be granted and authorized the McLeod County Planning and Zoning Department to develop this Environmental Assessment (see Attachment).

Primary Project Contacts:

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Project Need

The City of Glencoe owns and operates a municipal electric system under a Light and Power Commission. The Glencoe Light and Power Commission (GLPC) currently serves the City of Glencoe, City of Biscay, and the area between the two cities. The load growth in the area has been increasing by about 2% annually. The electrical customers of GLPC receive electrical energy from a combination of local generation and a radial power line connection from Xcel Energy from the East. This connection was built in 1931 and has been largely unimproved since that time. It is deficient in terms of capacity, lightning protection, and reliability. The City of Glencoe must run its local generation to compensate for these demands on the existing system in the area.

Xcel Energy plans to make needed improvements to the existing power line between Glencoe and Waconia, utilizing existing right-of-way east of Glencoe. The Xcel improvements will not be possible to accomplish until the proposed GLPC transmission line is constructed. The GLPC line will provide an alternate source for Glencoe and areas East during this planned outage. The proposed GLPC transmission line and the improvements to the Xcel line are part of a larger long range West Central Minnesota Electric Planning Study that was submitted to the State planning agencies.

Proposed Project Description

The City of Glencoe and GLPC propose to increase electric transmission connection reliability and capacity to service the city's need for the present and future by constructing 9.5 miles of new 115 kV transmission line from the existing McLeod substation to the City of Glencoe, connecting to an existing 115 kV / 69 kV / 12.47 kV distribution substation in Glencoe. Long term regional planning include a connection between the proposed GLPC power line and substation with a future 115 kV upgrade from the City of Glencoe to the City of Waconia, significantly improving the electric reliability to Glencoe and other communities along the way.

Construction and Maintenance

Construction of the proposed project is planned to begin in the fall of 2004. The City of Glencoe will construct, operate and maintain the proposed power line with the intention to minimize the burden on the McLeod County infrastructure. Crop damage and farmland disturbance will be minimized by the design and planning of the proposed project. The McLeod substation and the Glencoe West substation equipment will be expanded within the current station boundaries.

The proposed project will include the final survey, soil testing, and construction of foundations, placement of wood and steel structures, and installation of conductors. Also in the late fall of 2004 to early 2005, the cities of Glencoe and Hutchinson will be expanding their two substations within existing boundaries of those facilities. Project completion and initial operation is expected before the summer of 2005. Significant removal of trees or other woody vegetation during construction of the project will be minimized where possible by design and route selection.

Environmental Considerations

Rare, Unique or ecologically sensitive resources: The Permittee has agreed as a condition of the permit, that prior to commencing construction The Minnesota Department of Natural Resources, Natural Heritage and Nongame Research Program will be contacted to determine if any rare plant or animal species or significant natural features are known to occur in the project area.

Water Resources: No water resources are expected to be affected by the proposed project. The quantity and quality of surface runoff will not be affected by the selected routing of the transmission line.

Soils and Topography

Archaeological and Historic Resources: The Permittee has agreed as a condition of the permit, that prior to commencing construction the Minnesota Historical Society will be contacted for identification of any known archaeological and historic resources in the vicinity of the proposed transmission route.

Noise: Standard noise associated with heavy equipment operation will occur during excavation and grading operations. The impact should be minimal, as these activities will be short-lived. Construction activities will occur during the normal working hours of contractors.

Operation of the high voltage transmission line will meet the Minnesota Pollution Control Agency Noise Pollution Control Rules (Chapter 7030).

Visual Impacts: The proposed project will include some transmission towers that may rise approximately 100 feet above grade. These towers will be spaced approximately 1,300 feet apart to accommodate minimizing impacts on crop producing areas.

Impact on Human Settlement

Overall Public Health and Safety: Present public health studies associated with high voltage transmission lines have focused on electric and magnetic fields (EMF). EMF results from both the operating voltage of the transmission line and the flow of electricity through the conductor.

The Minnesota Department of Health (MDH) has concluded that the current body of evidence is insufficient to establish a cause and effect relationship between EMF and adverse health effects. While some epidemiological studies have reported a weak association between leukemia with increasing exposure to magnetic fields, other studies have reported no association. Epidemiological studies alone are considered insufficient for concluding that a cause and effect relationship exists, and must be supplemented by data from laboratory studies. Existing laboratory studies have not substantiated this relationship (even at high exposure levels).

These conclusions are similar to the conclusions of scientific committees convened by the US Congress, and other international and national health.

As with many other environmental health issues, the possibility of a health risk from EMF cannot be entirely dismissed. The MDH considers it prudent public health policy to continue to monitor the EMF research and to support prudent avoidance measures, including providing information to the public regarding EMF sources and exposures.

The MDH and other state agencies are also working together to provide guidance for a consistent science-based EMF policy, including the identification of low cost no cost measures to mitigate EMF exposures.

The above information has been provided by the Minnesota Department of Health on their website. Please refer to <http://www.health.state.mn.us/divs/eh/radiation/emf/> for more information on EMF related topics.

Governmental Permits / Approvals Required

State: Minnesota Department of Transportation – Utility Crossing Permit (Required prior to construction)

Local: Conditional Use Permit – McLeod County (pending)

Agencies Contacted

The Minnesota Environmental Quality Board has provided a distribution list to GLPC for purposes of notifying interested parties.

Attachments

Letter from the Minnesota EQB dated October 8, 2003 indicating McLeod County as the Responsible Government Unit

Conditional Use Permit Application #03-27, dated September 24, 2003

Recommendation of the McLeod County Planning Commission November 19, 2003